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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/633,484	RIDDER ET AL.	
	Examiner	Art Unit	
	Stephen L. Rawlings, Ph.D.	1643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33,36,37,39,40 and 54-62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33,36,37,39,40 and 54-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *Notice to Non-Compliant Amendment*.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 30, 2007, has been entered.

1. The amendment filed October 30, 2007, is acknowledged and has been entered. Claims 34, 35, 52, and 53 have been cancelled. Claims 33, 39, and 40 have been amended. Claims 56-62 have been added.

2. Claims 33, 36, 37, 39, 40, and 54-62 are pending in the application and are currently under prosecution.

Grounds of Objection and Rejection Withdrawn

3. Unless specifically reiterated below, Applicant's amendment and/or arguments filed October 30, 2007, have obviated or rendered moot the grounds of objection and rejection set forth in the previous Office action mailed October 3, 2007.

Response to Amendment

4. The amendment filed on October 30, 2007, is considered non-compliant because it fails to meet the requirements of 37 CFR § 1.121, as amended on June 30, 2003 (see *68 Fed. Reg. 38611*, Jun. 30, 2003). However, in order to advance prosecution, rather than mailing a Notice of Non-Compliant Amendment alone, Applicant is advised to correct the following deficiencies in replying to this Office action:

(a) The amendment to the specification is non-compliant because it fails to show each and every change that has been made relative to the immediate prior

version thereof using proper markings; in addition, it is noted that the unmarked changes (e.g., deletion of the registered symbol following the trademark Tween™) that have been made in the paragraph at page 40, beginning in line 9, "undo" changes made in the prior version to correct deficiencies therein.

(b) The amendment to the claims is non-compliant because the status identifier of claim 33, which appears in parentheses, does not properly indicate that claim 33 has been amended.

5. The objection under 35 U.S.C. § 132(a) to the amendment filed July 18, 2007, because it introduces new matter into the disclosure, is maintained for the following reasons:

As explained previously, the amendatory material, which appears not to be supported by the original disclosure, includes any and all references to SEQ ID NOs: 1, 2, 3, 4, 5, 6, 7, 9, 8, 10, 11, 12, 13, and 14, including the substitute Sequence Listing.

Applicant has contended support for the added material is found in a printout from the NCBI website, which is attached to the amendment filed July 18, 2007. However, it was noted in the preceding Office action that written support for the added material must be found in the specification, including the claims, as originally filed; and in this instance, it is not immediately apparent where in the specification, as filed, that support may be found. In addition, it is unclear what nexus between the material, which has not been added to the specification, and information extracted from the NCBI website is found in the specification, as filed, might exist.

Applicant was previously advised that if any information disclosed by the non-patent publications, which are cited, for example, in Table 1 of the specification, including the content of any information identified by reference to the accession number of an electronic database, be relied upon to describe and enable the claimed invention, Applicant is required to amend the specification to include the material incorporated by reference to that publication or database; and the amendment must be accompanied by an affidavit or declaration executed by Applicant, or a practitioner representing

Applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application[1].

Notably Applicant has now provided a statement that "the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter" (page 6, paragraph 2 of the amendment filed October 30, 2007); yet, it is still not apparent which material added to the specification has been incorporated from which reference.

Previously noted, for example, while it appears to be Applicant's position that written support for the addition of the sequence set forth as SEQ ID NO: 9 is found in the non-patent publication of Smedts et al. (*Am. J. Pathol.* 1990 Mar; 136 (3): 657-668), which is cited in Table 1 at page 21 of the specification, as filed, the disclosure and reference to this publication does not appear to provide support for the added material because Smedts et al. does not disclose that material (i.e., the amino acid sequence of SEQ ID NO: 9) or *particularly* identify that material as the amino acid sequence of cytokeratin 18.

As another matter, it is unclear whether the amendatory material set forth in the present application as SEQ ID NO: 4 is the same material incorporated by reference in this application to Swissprot Accession Number P35221 or de Boer et al. (*Am. J. Pathol.* 1999 Aug; 155 (2): 505-515); see Table 2 at page 28 of the specification. Since the latter reference does not appear to disclose the amino acid sequence of SEQ ID NO: 4, it is probable that Applicant intended that the material be incorporated by reference to Swissprot Accession Number P35221; even so, Applicant should make clear the source of any amendatory material in responding to this Office action.

Then, as a third issue, it is aptly noted that the sequence set forth by Swissprot Accession Number P26232, for example, has been recently updated, such that there are differences in the sequence as set forth under this same accession number as of the filing date of this application, and therefore as of the date of incorporation by reference to that material by this application. Therefore, despite Applicant's assurance

[1] See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179

that the amendatory material consists of the same material incorporated by reference in the referencing application, it seems reasonable to question whether the sequence now set forth in this application as SEQ ID NO: 5 is the same as the amino acid sequence presently identified by this accession number or that identified as of the filing date of this application. The current version of the entry is 72, whereas it appears that the version of the entry as of the filing date sought by Applicant (i.e., August 1, 2002) was 27. A comparison of these versions of the entry may be made on the Internet at http://beta.uniprot.org/uniprot/P26232?version=*.

Finally, where in the specification is there reference to a publication disclosing the amino acid sequence of SEQ ID NO: 13 (i.e., the amino acid sequence of $p16^{INK4a}$), which has been incorporated by the amendment? The paragraph starting at page 17, line 25, has been amended to parenthetically recite "SEQ ID NO: 13" after the disclosure therein of $p16^{INK4a}$, but that disclosure does not reference the source of that sequence.

Accordingly, while the disclosures and references cited in Table 1, for example, *might* be deemed to provide support for the added material upon proper incorporation by reference of the specific material, which has been added, it is unclear which source incorporated by reference in this application provide a disclosure of the amendatory material. Furthermore, the source of the amendatory material must unambiguously identify that material, such that upon a reading of the publication it is evident that the material added is that particular material that was intended to have been incorporated by the original specification's reference to the publication.

Again, M.P.E.P. § 608.01(p) does not provide for the incorporation by reference of essential material by reference to non-patent publications. "Essential material" is defined as "that which is necessary to (1) describe the claimed invention, (2) provide an enabling disclosure of the claimed invention, or (3) describe the best mode (35 U.S.C. 112)"[2].

USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

[2] As previously explained with regard to the normalization marker p120, for example, it is essential that the sequence of the protein be known since Aho et al. (of record) teaches that the designation "p120" or

The sequence of each of the markers is essential information; moreover, its disclosure by the specification is necessary to both describe and enable the claimed invention.

Furthermore, Applicant is again reminded that according to M.P.E.P. 608.01(p):

> Mere reference to another application, patent, or publication is not an incorporation of anything therein into the application containing such reference for the purpose of the disclosure required by 35 U.S.C. 112, first paragraph. *In re de Seversky*, 474 F.2d 671, 177 USPQ 144 (CCPA 1973).

With regard to incorporation by reference, the Federal Circuit in deciding *Advanced Display Systems Inc. v. Kent State University*, 54 USPQ2d 1673 (CA FC), has further opined:

> Incorporation by reference provides a method for integrating material from various documents into a host document--a patent or printed publication in an anticipation determination--by citing such material in a manner that makes clear that the material is effectively part of the host document as if it were explicitly contained therein. *See General Elec. Co. v. Brenner*, 407 F.2d 1258, 1261-62, 159 USPQ 335, 337 (D.C. Cir. 1968); *In re Lund*, 376 F.2d 982, 989, 153 USPQ 625, 631 (CCPA 1967). To incorporate material by reference, the host document must identify with detailed particularity what specific material it incorporates and clearly indicate where that material is found in the various documents. *See In re Seversky*, 474 F.2d 671, 674, 177 USPQ 144, 146 (CCPA 1973) (providing that incorporation by reference requires a statement "clearly identifying the subject matter which is incorporated and where it is to be found"); *In re Saunders*, 444 F.2d 599, 602-03, 170 USPQ 213, 216-17 (CCPA 1971) (reasoning that a rejection for anticipation is appropriate only if one reference "expressly

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"p120 catenin (p120ctn)" identifies a plurality of discrete members of a genus of proteins, which owing to alternative splicing and multiple translation initiation codons, includes several isoforms that are expressed from a single gene, which share the central Armadillo repeat domain but have divergent N- and C-termini; see entire document (e.g., the abstract). Aho et al. teaches, though little is known about their specific functions, these structural variants are expected to have non-redundant and quite possible unique roles in cellular biology; see, e.g., the abstract; and page 1391, column 1. Additionally, Aho et al. teaches these variants are differentially expressed in different types of tissues and different types of cells; see, e.g., the abstract. Thus, following the example provided by the disclosure of Aho et al., it is apparent that the skilled artisan cannot predict whether any one of the presumably different members of polypeptides (e.g., "p120") to which the claims are directed will be suitable for use in practicing the claimed process because the artisan cannot know whether any species of polypeptide encompassed by the claims will be expressed by the cervical epithelium, or more particularly by the endocervix or ectocervix. Accordingly, the artisan cannot know whether any one species of polypeptide encompassed by the claims can be used as an appropriately suitable normalization marker to identify the presence of endocervical and/or ectocervical cells, or distinguish such cells from other cervical or non-cervical cells, so as to determine the adequacy of the sample. More pointedly, the description is not sufficiently details to permit the skilled artisan to immediately envision, recognize or distinguish which polypeptides encompassed by the claims can be used to practice the claimed process; and therefore the suitability of any such polypeptide for use as a normalization marker in practicing the claimed invention can only be determined empirically.

> incorporates a particular part" of another reference); *National Latex Prods. Co. v. Sun Rubber Co.*, 274 F.2d 224, 230, 123 USPQ 279, 283 (6th Cir. 1959) (requiring a specific reference to material in an earlier application in order have that material considered part of a later application); *cf. Lund*, 376 F.2d at 989, 153 USPQ at 631 (holding that a one sentence reference to an abandoned application is not sufficient to incorporate material from the abandoned application into a new application). Whether and to what extent material has been incorporated by reference into a host document is a question of law. *See Quaker City Gear Works, Inc. v. Skil Corp.*, 747 F.2d 1446, 1453-54, 223 USPQ 1161, 1166 (Fed. Cir. 1984) (reasoning that whether a document is incorporated by reference into a patent presents a question of law when determining enablement). *Id.* at 1679-1680.
>
> [Thus] the standard of one reasonably skilled in the art should be used to determine whether the host document describes the material to be incorporated by reference with sufficient particularity. *Id.* at 1680.

Until this issue has been resolved, the material added to the claims, which finds support only in the material that has been added to the specification by this amendment, is considered new matter.

Unless this issue is remedied by other appropriate means, Applicant is required to cancel the new matter in the reply to this Office Action.

Grounds of Objection and Rejection Maintained

Specification

6. The objection to the specification, because the use of improperly demarcated trademarks, is maintained. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner that might adversely affect their validity as trademarks. See MPEP § 608.01(v).

Although it appears that Applicant has made a *bona fide* attempt to resolve this issue by appropriately amending the specification, improperly demarcated trademarks still appear in the specification (e.g., Superblock™; see the specification at page 41, line 5).

Again, appropriate correction is required. Each letter of a trademark should be capitalized or otherwise the trademark should be demarcated with the appropriate symbol indicating its proprietary nature (e.g., ™, ®), and accompanied by generic terminology. Applicants may identify trademarks using the "Trademark" search engine

under "USPTO Search Collections" on the Internet at http://www.uspto.gov/web/menu/search.html.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. The rejection of claims 33, 36, 37, 39, 40, and 54-62 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement, is maintained. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This is a "new matter" rejection.

Claims 33, 36, 37, 39, 40, and 54-62 recite limitations that the normalization marker is identified as having one or another of the sequences set forth as SEQ ID NOs: 1-12 and that the relevant marker (i.e., $p16^{INK4a}$) has the amino acid sequence of SEQ ID NO: 13.

However, as explained above, it appears that the language of the claims, as presently amended, only finds support in the material that has been added by this amendment.

Though Applicant has contended support for the material added to the specification is found in a printout from the NCBI website, which is attached to the amendment filed July 18, 2007, it is still not evident what nexus exists between the material, which has not been added to the specification, and either the specification, as filed, or the information extracted from the NCBI website.

This issue has been discussed in the above objection to amendment filed July 18, 2007; and Applicant is referred to that discussion.

Until this issue is resolved by properly amending the specification to provide the necessary written support for the language of the claims, the amendment filed July 18, 2007, is deemed to have introduced new matter, thereby violating the written description requirement set forth under 35 U.S.C. § 112, first paragraph.

New Grounds of Objection

Claim Objections

9. Claims 39, 40, 59, and 60 are objected to because the arrangement of terms of the claims would confuse interpretation. Presently the claims are directed to the methods of claims 33 or 56, wherein the normalization marker indicates the presence of endocervical or ectocervical cells, and is selected from the "group consisting SEQ ID NOs: 2, 8, and 9" or the "group consisting of SEQ ID NOs: 1, 3-7, 11, and 12". However, because it is the level of the marker in the sample, as compared to the value of the threshold level of the marker, that indicates whether endocervical or ectocervical cells are present in the sample, and not the presence in the sample of the cells that indicates the level of the marker, it is submitted that the claims should be appropriately rewritten to make the relationship more evident.

In addition, claims 39, 40, 59, and 60 are objected to because the claims recite that the normalization marker is selected from a group of amino acid sequences, as opposed to a polypeptide comprising or consisting of an amino acid sequence selected from the recited groups of amino acid sequences. A measurable marker that might be present in the sample solution is not a sequence, but rather a polypeptide having a sequence.

Appropriate correction is required.

It is suggested that claim 39, for example, be rewritten as such:

The method according to claim 33, wherein said normalization marker is a polypeptide comprising an amino acid sequence selected from the group of SEQ ID NO: 2, SEQ ID NO: 8, and SEQ ID NO: 9, and wherein when the determined level of said marker in the sample solution is higher than the threshold level of the normalization

marker determined from an adequate and predefined amount of endothelial cells there is an indication of the presence of endocervical cells in the sample solution.

10. Claims 54 and 55 are objected to because the claims depend from claims 39 and 40, respectively, instead of claim 33. Claims 54 and 55 are presently drawn to the methods of claims 39 and 40, wherein said normalization marker is SEQ ID NO: 2 or SEQ ID NO: 1, respectively, but claims 39 or 40 recite limitations that the marker is selected from the group of SEQ ID NOs: 2, 8, and 9 or the group of SEQ ID NOs: 1, 3-7, 11, and 12, respectively. Since SEQ ID NOs: 8 and 9 are not the same as SEQ ID NO: 2, claim 54 does not properly limit each embodiment of the preceding claim; and the same is true of claim 55.

In addition, claims 54 and 55 are objected to because the claims recite that the normalization marker is an amino acid sequence, as opposed to a polypeptide comprising or consisting of an amino acid sequence. Again, a measurable marker that might be present in the sample solution is not a sequence, but rather a polypeptide having a sequence.

Appropriate correction is required.

It is suggested that this issue be remedied by amending claims 54 and 55 to depend from claim 33, rather from claims 39 and 40.

11. Claims 61 and 62 are objected to because the claims depend from claims 59 and 60, respectively, instead of claim 56.

The reasoning is the same as that set forth in the above objection of claims 54 and 55.

In addition, claims 61 and 62 are objected to because the claims recite that the normalization marker is an amino acid sequence, as opposed to a polypeptide comprising or consisting of an amino acid sequence.

Appropriate correction is required.

It is suggested that this issue be remedied by amending claims 61 and 62 to depend from claim 56, rather from claims 59 and 60.

New Grounds of Rejection

Claim Rejections – 35 U.S.C. § 112

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 33, 36, 37, 39, 40, and 54-62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 33, 36, 37, 39, 40, and 54-62 are indefinite for the following reasons:

(a) Claims 33 and 56 recite, "an elevated level of $p16^{INK4a}$ within the sample solution is indicative of [...]", but neither claim makes evident the standard of comparison that is necessarily used in determining if the level of the protein is elevated. Is the standard the level of the protein in a normal human cervical sample, or not? Because this is not evident, the claims do not delineate the metes and bounds of the subject matter that is regarded as the invention with the requisite degree of clarity and particularity to satisfy the requirement set forth under 35 U.S.C. § 112, second paragraph, so as to permit the skilled artisan to know or determine infringing subject matter.

It is suggested that this issue be remedied by amending claims 33 and 56 to recite, for example, "an elevated level of $p16^{INK4a}$ within the sample solution, as compared to the level of $p16^{INK4a}$ of a normal human cervical sample, is indicative of [...]"

(b) Claims 33 and 56 recite, "wherein said normalization marker is selected from the group consisting of gamma-Catenin, SEQ ID NO: 1; Ep-CAM, SEQ ID NO: 2", etc. It cannot be ascertained whether the marker (e.g., gamma-Catenin) is a polypeptide that comprises or consists of the amino acid sequence that follows (e.g., SEQ ID NO: 1), or if the amino acid sequence is meant to be merely exemplary of such a polypeptide. Because the claims cannot be interpreted unambiguously, the claims do not delineate the metes and bounds of the subject matter that is regarded as the

invention with the requisite degree of clarity and particularity to satisfy the requirement set forth under 35 U.S.C. § 112, second paragraph, so as to permit the skilled artisan to know or determine infringing subject matter.

(c) Claim 56 recites, "determining the presence or absence of a detectable level of at least one normalization marker". Accordingly, it might seem unnecessary to perform a quantitative analysis of the marker, since a qualitative analysis would be sufficient to determine the presence of the marker, but how might one determine the presence or absence of a "detectable level" of the marker, where it is not evident how the marker is necessarily detected, or not detected? Moreover, what level is an "undetectable level", and when and/or how is that level deemed "undetectable"? Different means of detection have varying sensitivities; so depending upon the means of detection that is used, it might be entirely possible to fail to detect the presence of a marker in a sample solution, despite the presence in the sample of the marker. Do the claims require the absence of the marker in the sample, or merely an inability to detect the marker? If the latter, by which means of detection is the marker not detectable? Furthermore, different means of detection have varying specificities, such that it is often difficult to discern "background" or signal noise from actual signal indicating the presence of an analyte (e.g., a protein); so depending upon the means of detection that is used, it might be entirely possible to fail to detect the presence of a marker in a sample solution, despite the presence in the sample of the marker, and it might be possible to falsely conclude that the marker is present, despite its true absence. Do the claims require the presence of the marker? If so, how must the marker be detected, such that its true presence is assured? Given the vagueness of the language of the claims, it is submitted that the metes and bounds of the subject matter that is regarded as the invention is not delineated with the requisite degree of clarity and particularity to satisfy the requirement set forth under 35 U.S.C. § 112, second paragraph, so as to permit the skilled artisan to know or determine infringing subject matter.

It is suggested that this issue be remedied by amending the claims to recite a step by the presence of the marker is determined absolutely, such that it would be determined if the marker is present, and if so, then that presence indicates the presence

of either ectocervical or endocervical cells in the sample - depending upon which marker was selected.

In doing so Applicant will resolved another issue, namely that although the present claim recites a step by which the presence or absence of the normalization marker is determined, the claim merely recites a correlative that when it is present, an elevated level of $p16^{INK4a}$ within the sample solution is indicative of cervical dysplasia, cervical cancer, or high grade cervical intraepithelial neoplasia. What happens when the normalization marker is determined to be absent, or not detectable? As currently written, when the normalization marker is not detected, claim 56 fails to recite a positive correlative clearly relating back to the intended use of the process, as it is recited in the preamble; so it is unclear how the claimed objective might be met in such an event. While there is some guidance in the specification at, e.g., paragraph [0073] of the published application, Applicant is reminded that though the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Consequently, the skilled artisan cannot know or determine with the requisite certainty whether each and every process step considered essential to the practice of the claimed invention is included in the body of the claim.

14. Claims 33, 36, 37, 39, 40, and 54-62 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This is a "written description" rejection.

The considerations that are made in determining whether a claimed invention is supported by an adequate written description are outlined by the published Guidelines for Examination of Patent Applications Under the 35 U.S.C. 112, para. 1, ``Written Description" Requirement (Federal Register; Vol. 66, No. 4, January 5, 2001). A copy

of this publication can be viewed or acquired on the Internet at the following address: <http://www.gpoaccess.gov/>.

These guidelines state that rejection of a claim for lack of written description, where the claim recites the language of an original claim should be rare. Nevertheless, these guidelines further state, "the issue of a lack of written description may arise even for an original claim when an aspect of the claimed invention has not been described with sufficient particularity such that one skilled in the art would recognize that the applicant has possession of the claimed invention" (*Id.* at 1105). The "Guidelines" continue:

> The claimed invention as a whole may not be adequately described if the claims require an essential or critical feature which is not adequately described in the specification and which is not conventional in the art or known to one of ordinary skill in the art. This problem may arise where an invention is described solely in terms of a method of its making coupled with its function and there is no described or art-recognized correlation or relationship between the structure of the invention and its function. A lack of adequate written description issue also arises if the knowledge and level of skill in the art would not permit one skilled in the art to immediately envisage the product claimed from the disclosed process.

With further regard to the proposition that, as *original* claims, the claims themselves provide *in haec verba* support sufficient to satisfy the written description requirement, the Federal Circuit has explained that *in ipsis verbis* support for the claims in the specification does not *per se* establish compliance with the written description requirement:

> Even if a claim is supported by the specification, the language of the specification, to the extent possible, must describe the claimed invention so that one skilled in the art can recognize what is claimed. The appearance of mere indistinct words in a specification or a claim, even an original claim, does not necessarily satisfy that requirement. The disclosure must allow one skilled in the art to visualize or recognize the identity of the subject matter purportedly described. *Eli Lilly*, 119 F.3d at 1568, 43 USPQ2d at 1406.

Regents of the University of California v. Eli Lilly & Co., 119 F.3d 1559, 43 USPQ2d 1398 (Fed. Cir. 1997). *See also:* University of Rochester v. G.D. Searle & Co., 69 USPQ2d 1886 1892 (CA FC 2004).

Thus, an original claim may provide written description for itself, but it must still be an adequate written description, *which establishes that the inventor was in possession of the invention*.

In this instance, the claims are directed to processes for detecting cervical dysplasia, cervical cancer, or high grade cervical intraepithelial neoplasia in human cervical body samples, said process comprising comparing the levels of the normalization makers in the sample solution, as determined by the preceding step of the process, to "threshold levels of the normalization markers determined from an adequate and predefined amount of ectocervical cells or endocervical cells".

Although it is evident how the values of the "threshold levels of the normalization markers determined from an adequate and predefined amount of ectocervical cells or endocervical cells" are determined (i.e., the values were necessarily determined by measuring the level of the marker in a sample comprised of an adequate and predefined amount of ectocervical cells or endocervical cells), the values are not disclosed in this application.

Without knowledge of the values to which the claims refer the claimed processes cannot be practiced.

The skilled artisan cannot guess or predict the values of the "threshold levels of the normalization markers determined from an adequate and predefined amount of ectocervical cells or endocervical cells"; these values must be known to practice the claimed invention.

Given the lack of disclosure of the particular values of the "threshold levels of the normalization markers determined from an adequate and predefined amount of ectocervical cells or endocervical cells" to which the claims are specifically directed, the specification would not reasonably convey to the skilled artisan that Applicant had possession of the claimed invention at the time the application was filed.

Applicant is reminded that "generalized language may not suffice if it does not convey the detailed identity of an invention." *University of Rochester v. G.D. Searle Co.*, 69 USPQ2d 1886 1892 (CAFC 2004).

"Regardless whether a compound is claimed *per se* or a method is claimed that entails the use of the compound, the inventor cannot lay claim to the subject matter unless he can provide a description of the compound sufficient to distinguish infringing compounds from non-infringing compounds, or infringing methods from non-infringing methods". *University of Rochester v. G.D. Searle Co.*, 69 USPQ2d 1886 1894 (CAFC 2004).

Again, use of the claimed process depends upon knowing the value of the "threshold levels of the normalization markers determined from an adequate and predefined amount of ectocervical cells or endocervical cells" to which the claims are specifically directed; without knowledge of the value, it is impossible to practice the invention.

It is suggested that the issue of the adequacy of the disclosure to satisfy the written description requirement might be remedied if claims 33 and 56 were amended to recite an active step by which the values of the "threshold levels of the normalization markers determined from an adequate and predefined amount of ectocervical cells or endocervical cells" are actually determined during the practice of the invention.

Conclusion

15. No claim is allowed.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen L. Rawlings, Ph.D. whose telephone number is (571) 272-0836. The examiner can normally be reached on Monday-Friday, 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Helms, Ph.D. can be reached on (571) 272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen L. Rawlings/

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slr
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